Research in International Business and Finance 40 (2017) 150–162

Contents lists available at ScienceDirect

Research in International Business and Finance

journal homepage: www.elsevier.com/locate/ribaf

Full length Article

Sanctions and the Russian stock market

Andrei Ankudinov[a,b], Rustam Ibragimov[c,b], Oleg Lebedev[a,b,*]

[a] Kazan Federal University, 18 Kremlyovskaya Street, Kazan 420008, Russia
[b] Innopolis University, 1 Universitetskaya Street, Innopolis city 420500, Russia
[c] Imperial College Business School, Exhibition Road, South Kensington Campus, London SW7 2AZ, UK

ARTICLE INFO

Article history:
Received 7 January 2017
Accepted 26 January 2017
Available online 5 February 2017

Keywords:
Heavy tails
Russia
Structural breaks
Sanctions
Stock market
Volatility

ABSTRACT

The article presents the robust estimates of extreme movements and heavy-tailedness properties for Russian stock indices returns before and after sanctions were introduced. The obtained results show that almost for all sectoral indices there was a statistically significant increase in volatility. At the same time there is not enough evidence of structural breaks in heavy-tailedness, though some indications of heavier both right and left tails in the post-imposition period can be observed for some indices. However, we cannot with complete certainty directly link the increase in heavy-tailedness with the imposed sanctions. The latter to a considerable extent could be caused by higher country-specific risks due to geopolitical tensions as well as oil prices volatility. Whatever is the cause, any increases in heavy-tailedness can have grave consequences for corporate management, economic modeling and financial stability analysis.

1. Introduction

The Russian stock market as a whole is characterized by a high likelihood of extreme movements and is generally quite volatile even by the standards of emerging markets (see, among others, (Jondeau and Rockinger, 2003; Gaddy and Ickes, 2010; Ibragimov et al., 2015; Castagneto-Gissey and Nivorozhkin, 2016)). The high volatility of emerging financial markets is mostly due to its sensitivity towards a myriad of various internal and external shocks which, in turn, are largely driven by the level of institutional development, geopolitical tensions, structural imbalances, low level of national economy diversification and macroeconomic policy (see, for example, discussion in Åslund et al. (2010), Claessens et al. (2000), Neaime (2010), Lagoarde-Segot and Lucey (2009), Neaime (2012), Lagoarde-Segot (2013), Connolly (2015)). Western sanctions represent one of such shocks, capable of generating large changes in the prices of financial assets as a result of direct restrictions imposed on particular entities as well as of a general increase in the country-specific risk.

The probability of extreme changes in the distribution of a variable can be empirically estimated by the tail index indicator ζ. The more the probability mass in the tails, the smaller are the tail index parameters ζ. Meanwhile, the tail indices estimates are by no means only of academic interest: they can be instrumental in risk-management, serve as an important source of information for policy-makers, financial regulators, financial managers. For example, if $\zeta < 1$, the value of diversification becomes negative which means that adding new assets to the portfolio would increase rather than decrease its overall risk (Ibragimov, 2009a,b). Heavy tails with $\zeta < 2$ may result in the unreliability of standard statistical methods based on analysis

* Corresponding author at: 54 – Patrice Lumumba str., apt. 117; Kazan, 420081, Russia.
E-mail addresses: ABAnkudinov@kpfu.ru (A. Ankudinov), i.rustam@imperial.ac.uk (R. Ibragimov), lebolegan@yandex.ru, OVLebedev@kpfu.ru (O. Lebedev).

http://dx.doi.org/10.1016/j.ribaf.2017.01.005
0275-5319/